Appendix B : raidcmd Command Reference

This chapter describes commands of the raidcmd.

cc

[Overview]

Starts or stops Consistency Check.

[Format]

raidcmd **cc** -c={all|<*controller*> -l={all|<*logicaldrive*>}} -op={start|stop}

Command Parameter	Description
-c={all|<*controller*>}	Specify the RAID Controller to be processed. all : all of RAID Controllers <*controller*> : RAID Controller Number
-l={all|<*logicaldrive*>}	Specify the Logical Drive to be processed. all : all of Logical Drives on the RAID Controller specified by -c <*logicaldrive*> : Logical Drive Number
-op={start|stop}	Specify whether Consistency Check is started or stopped. start : Starts Consistency Check. stop : Stops Consistency Check.

[Description]

Starts Consistency Check of the specified Logical Drive or stops Consistency Check executed for the specified Logical Drive.
Don't use -l when specified -c with "all".

[Condition]

Allow to start Consistency Check to Logical Drive with the following situation.

- RAID Controller has the function of Consistency Check.
- The RAID Level of the Logical Drive is not 0.
- The status of the Logical Drive is [Online].
- It is not running Consistency Check to the Logical Drive now.

Allow to stop Consistency Check to Logical Drive with the following situation.

- RAID Controller has the function of Consistency Check and stopping it.
- The RAID Level of the Logical Drive is not 0.
- The status of the Logical Drive is [Online] or [Degraded].
- It is running Consistency Check to the Logical Drive now.

ccs

[Overview]

Starts Consistency Check of Logical Drives in the RAID Controllers in which Patrol Read is not supported.

[Format]

raidcmd **ccs**

[Description]

Starts Consistency Check of Logical Drives in the RAID Controllers in which Patrol Read is not supported.

[Condition]

Allow to start Consistency Check to Logical Drive by ccs with the following situation.

- RAID Controller does not have the function of Patrol Read.
- RAID Controller has the function of Consistency Check.
- The RAID Level of the Logical Drive is not 0.
- The status of the Logical Drive is [Online].
- It is not running Consistency Check to the Logical Drive now.

delld

[Overview]

Deletes a Logical Drive.

[Format]

raidcmd **delld** -c=<*controller*> -l=<*logicaldrive*> [-y]

Command Parameter	Description
-c=<*controller*>	Specify the RAID Controller to be processed. <*controller*> : RAID Controller Number
-l=<*logicaldrive*>	Specify the Logical Drive to be processed. <*logicaldrive*> : Logical Drive Number
[-y]	Deletes the Logical Drive immediately without displaying the message of confirming that the Logical Drive may be deleted.

[Description]

Deletes the specified Logical Drive.

Logical drive allowed to be deleted

If more than one Logical Drive exist in a single Disk Array, only the Logical Drive located at the end of the Disk Array can be deleted. Logical drives at the top and middle of the Disk Array cannot be deleted.

Deletion of Disk Array

If deleting Logical Drive and Disk Array becomes not to have Logical Drive any more, the Disk Array is deleted automatically.

[Condition]

This command can be executed only in the Advanced Mode.

econfig

[Overview]

Configures a RAID System with a RAID Controller easily.

[Format]

raidcmd **econfig**

[Description]

Executes easy configuration which can automatically configure a RAID System with the specified RAID Controller. For details of the easy configuration, see "Configuring RAID System Easily" of "Universal RAID Utility User's Guide".

help

[Overview]

Displays the help of raidcmd.

[Format]

raidcmd **help** <*subcommand*>

Command Parameter	Description
<*subcommand*>	Specify the command name to see the help. If command name is omitted, displays the list of command.

[Description]

Displays the description of each command of raidcmd. If don't specify the command name as command parameter, displays the list of all of command.

hotspare

[Overview]

Makes or removes a Hot Spare.

[Format]

raidcmd **hotspare** -c=<*controller*> -p=<*physicaldevice*> -mr={make [-a=<*diskarray1*> [,<*diskarrayX*>]] | remove } [-y]

Command Parameter	Description
-c=<*controller*>	Specify the RAID Controller to be processed. <*controller*> : RAID Controller Number
-p=<*physicaldevice*>	Specify the Physical Device to be processed. <*physicaldevice*> : Physical Device Number
-mr={make [-a=<*diskarray1*>[,<*diskarrayX*>]] | remove}	Specify that a Hot Spare is made or removed. make: Makes a Hot Spare. Depending on whether the -a option exists or not, the type of the Hot Spare to be made varies (Global or Dedicated). Specify Disk Arrays to be subject to hot swap if a Dedicated Hot Spare is made. If the -a option does not exist for making a Hot Spare, a Global Hot Spare will be made with the specified Physical Device. If the -a option exists and Disk Arrays are specified correctly for making a Hot Spare, a Dedicated Hot Spare will be made with the specified Physical Device. <*diskarray1*>, <*diskarrayX*>: Disk Array Numbers remove: Removes a Hot Spare.
[-y]	Changes the status without displaying the message of confirming that the Hot Spare is made or removed.

[Description]

Makes a Global or Dedicated Hot Spare with the specified Physical Device or removes the Hot Spare of the specified Physical Device.

[Condition]

The capacity of the Physical Device to be a Dedicated Hot Spare should be equal to or larger than that of any Physical Device used in the Disk Array.

Dedicated Hot Spares cannot be made in a Disk Array containing one or more Logical Drives with RAID Level being RAID 0.

init

[Overview]

Starts or stops Initialize.

[Format]

raidcmd **init** -c=<*controller*> -l=<*logicaldrive*> -op={start|stop} [-im={full|quick}] [-y]

Command Parameter	Description
-c=<*controller*>	Specify the RAID Controller to be processed. <*controller*> : RAID Controller Number
-l=<*logicaldrive*>	Specify the Logical Drive to be processed. <*logicaldrive*> : Logical Drive Number
-op={start|stop}	Specify that Initialize is started or stopped. start: Starts Initialize. stop: Stops Initialize.
[-im={full|quick}]	Specify the Initialize Mode. full: Full Initialize quick: Quick Initialize The full mode is selected if -im is omitted. -im is valid only when -op=start is specified.
[-y]	Initialize the Logical Drive immediately without displaying the message of confirming that the Logical Drive may be initialized.

[Description]

Starts Initialize of the specified Logical Drive or stops Initialize being executed for the specified Logical Drive.

[Condition]

Starting Initialize can be provided for a Logical Drive with its [Status] being [Online].

Stopping Initialize can be provided for a Logical Drive with its [Status] being [Online] or [Degraded].

mkldc

[Overview]

Creates a Logical Drive with advanced parameter settings.

[Format]

Making a Logical Drive having RAID Level of RAID 0, RAID 1, RAID 5 or RAID 6:

raidcmd **mkldc** -c=<*controller*> {-p=<*physicaldevice1*>, <*physicaldevice2*> [,<*physicaldeviceX*>, ... ,<*physicaldeviceZ*>] | -a=<*diskarray*> } –rl={0 | 1 | 5 | 6} [-cp=<*capacity*>] [-ss={1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | 1024}] [-cm={auto | writeback | writethru}] [-im={full | quick}] [-y]

Making a Logical Drive having RAID Level of RAID 10:

raidcmd **mkldc** -c=<*controller*> -p=<*physicaldevice1*>, <*physicaldevice2*> ,<*physicaldevice3*>,<*physicaldevice4*> –rl=10 [-ss={1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | 1024}] [-cm={auto | writeback | writethru}] [-im={full | quick}] [-y]

Making a Logical Drive having RAID Level of RAID 50:

raidcmd **mkldc** -c=<*controller*> -p=<*physicaldevice1*>,<*physicaldevice2*>,<*physicaldevice3*>,<*physicaldevice4*>,<*physicaldevice5*>,<*physicaldevice6*>[,...,<*physicaldeviceX*>] –rl=50 [-ss={1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | 1024}] [-cm={auto | writeback | writethru}] [-im={full | quick}] [-y]

Command Parameter	Description
-c=<*controller*>	Specify the RAID Controller connecting with Physical Devices used for the Logical Drive. <*controller*> : RAID Controller Number
Making a Logical Drive having RAID Level of RAID 0, RAID 1, RAID 5 or RAID 6 : { -p=<*physicaldevice1*> [,<*physicaldeviceX*>, ... ,<*physicaldeviceZ*>] } | -a=<*diskarray*>} Making a Logical Drive having RAID Level of RAID 10 : -p=<*physicaldevice1*>, <*physicaldevice2*> <*physicaldevice3*>,<*physicaldevice4*> Making a Logical Drive having RAID Level of RAID 50 : -p=<*physicaldevice1*>,<*physicaldevice2*>, <*physicaldevice3*>,<*physicaldevice4*>, <*physicaldevice5*>,<*physicaldevice6*> [,<*physicaldeviceX*>]	Specify Physical Devices used to create the Logical Drive or a Disk Array. The format is different from the RAID Level of the Logical Drive to be created. Use -p option to specify Physical Devices. <*physicaldevice1,2,X,Z*> : Physical Device Numbers. Delimit Physical Devices with ",". Specify -a option to specify a Disk Array. <*diskarray*> : Disk Array Number
-rl={0 | 1 | 5 | 6 | 10 | 50 }	Specify the RAID Level of the Logical Drive to be created as follows: 0 : RAID 0 1 : RAID 1 5 : RAID 5 6 : RAID 6 10 : RAID 10 50 : RAID 50
[-cp=<*capacity*>]	Specify the capacity of the Logical Drive to be created. <*capacity*>: capacity in GB Creates the Logical Drive of the maximum capacity available if -cp is omitted.
[-ss={1 | 2 | 4 | 8 | 16 | 32 | 64 | 128 | 256 | 512 | 1024}]	Specify the Stripe Size of the Logical Drive to be created. 1KB, 2KB, 4KB, 8KB, 16KB, 32KB, 64KB, 128KB, 256KB, 512KB, 1024KB The default value for the RAID Controller is used if -ss is omitted.
[-cm={auto | writeback | writethru}]	Specify the Cache Mode of the Logical Drive to be created. auto : Auto Switch writeback : Write Back writethru : Write Through The default value for the RAID Controller is used if -cm is omitted.
[-im={full | quick}]	Specify the Initialize Mode of the Logical Drive to be created. full : Full mode quick : Quick mode The full mode is used if -im is omitted.

Command Parameter	Description
[-y]	Creates the Logical Drive immediately without displaying the message of confirming that the Logical Drive may be created.

[Description]

Creates a Logical Drive with advanced parameter settings.
The raidcmd create a Logical Drive and terminates after Initialize is started. You can check the progress and result of the Initialize by using "**oplist**" and "**property**" commands.

RAID Levels allowed to be created

RAID 0、RAID 1、RAID 5、RAID 6、RAID 10、RAID 50

Available Physical Devices

Physical Devices with [Status] of [Ready]
Physical Devices not used at all

Available Disk Array

Disk Array has empty area at the end. The RAID Level of the Logical Drive to be created must be the same as that of the Logical Drive existing on the same Disk Array.

Configuration of Disk Array and Logical Drive to be created

Creates a single Disk Array and a single Logical Drive with the specified Physical Devices if the Disk Array is created newly.

Capacity of Logical Drive with RAID Level of RAID 10 or RAID 50

For the RAID Level of RAID 10 or RAID 50, use the entire areas of Physical Devices to create a Logical Drive. You cannot specify the capacities of the Physical Devices.

[Condition]

This command can be executed only in the Advanced Mode.

mklds

[Overview]

Creates a Logical Drive with simple parameter settings.

[Format]

raidcmd **mklds** -c=<*controller*> -p=<*physicaldevice1*>, <*physicaldevice2*>
[,<*physicaldeviceX*>, ... ,<*physicaldeviceZ*>] –rl={1 | 5} [-y]

Command Parameter	Description
-c=<*controller*>	Specify the RAID Controller connecting with Physical Devices used for the Logical Drive. <*controller*> : RAID Controller Number
-p=<*physicaldevice1*>, <*physicaldevice2*> [,<*physicaldeviceX*>, ... ,<*physicaldeviceZ*>]	Specify Physical Devices used to create the Logical Drive. <*physicaldevice1,2,X,Z*> : Physical Device Number Delimit the physical devices with ",".
-rl={1 | 5}	Specify the RAID Level of the Logical Drive to be created. 1 : RAID 1 5 : RAID 5
[-y]	Creates the Logical Drive immediately without displaying the message of confirming that the Logical Drive may be created.

[Description]

Creates a Logical Drive simply by specifying only two parameters, or Physical Devices used for the Logical Drive and RAID Level.
The raidcmd creates a Logical Drive and terminates after Initialize is started. You can check the progress and result of the Initialize by using "**oplist**" and "**property**" commands.

RAID Levels allowed to be created

RAID 1、RAID 5

Available Physical Devices

Physical Devices with [Status] of [Ready]
Physical Devices not used at all

Configuration of Disk Array and Logical Drive to be created

Creates a single Disk Array and a single Logical Drive with the specified Physical Devices.

Other parameters

Creates a Logical Drive with parameters set as follows:
Capacity : Creates a Logical Drive by using the entire areas of Physical Devices. The actual capacity varies depending on the RAID Level.
Stripe Size : 64KB
Cache Mode : Default mode of RAID Controller
Initialization Mode : Full

oplist

[Overview]

Displays the list of operations performed in a RAID Controller and their progresses.

[Format]

raidcmd **oplist**

[Description]

Displays the list of operations performed in a RAID Controller and their progresses.

Displayed operations

Initialization, Rebuild and Consistency Check

Display of terminated operation

oplist indicates operations being executed but does not indicate terminated operations.

optctrl

[Overview]

Allows you to set optional parameters of a RAID Controller.

[Format]

raidcmd **optctrl** -c=<*controller*> {-ip={high | middle | low} | -rp={high | middle | low} | -ccp={high | middle | low} | -pr={enable | disable} | -prp={high | middle | low} | -be={enable | disable} }

Command Parameter	Description
-c=<*controller*>	Specify the RAID Controller to be processed. <*controller*> : RAID Controller Number
-ip={high | middle | low}	Specify the Initialize Priority. high: High priority middle: Middle priority low: Low priority
-rp={high | middle | low}	Specify the Rebuild Priority. high: High priority middle: Middle priority low: Low priority
-ccp={high | middle | low}	Specify the Consistency Check Priority. high: High priority middle: Middle priority low: Low priority
-pr={enable | disable}	Specify whether Patrol Read is executed or not. enable: Executed disable: Not executed
-prp={high | middle | low}	Specify the Patrol Read Priority. high: High priority middle: Middle priority low: Low priority
-be={enable | disable}	Specify whether the Buzzer is enabled or disabled. enable: Enabled disable: Disabled

[Description]

Allows you to set optional parameters of the specified RAID Controller (including Initialize Priority, Rebuild Priority, Consistency Check Priority, Patrol Read execution and Priority, and Buzzer enable/disable).

Only a single parameter can be set at a time. Concurrent set of more than one parameter is disabled.

[Condition]

This command can be executed only in the Advanced Mode.

optld

[Overview]

Allows you to set optional parameters of a Logical Drive.

[Format]

raidcmd **optld** -c=<*controller*> -l=<*logicaldrive*> -cm={auto | writeback | writethru}

Command Parameter	Description
-c=<*controller*>	Specify the RAID Controller to be processed. <*controller*> : RAID Controller Number
-l=<*logicaldrive*>	Specify the Logical Drive to be processed. <*logicaldrive*> : Logical Drive Number
-cm={auto | writeback | writethru}	Specify the Cache Mode auto : Auto Switch writeback : Write Back writethru : Write Through

[Description]

Allows you to set optional parameters (Cache Mode) of the specified Logical Drive.

[Condition]

This command can be executed only in the Advanced Mode.

property

[Overview]

Displays the properties of RAID Controllers, Disk Arrays, Logical Drives and/or Physical Devices.

[Format]

raidcmd **property** –tg= { all | rc [-c=<*controller*>] | da -c=<*controller*> [-a=<*diskarray*>] | ld -c=<*controller*> [-l=<*logicaldrive*>] | pd -c=<*controller*> [-p=<*physicaldevice*>] }

Command Parameter	Description
-tg=all	Indicates the properties of all RAID Systems.
-tg=rc [-c=<*controller*>]	Indicates the property of the specified RAID Controller. Specify a RAID Controller Number with -c to indicate the property of the specific RAID Controller. Omit -c to indicate the properties of all RAID Controllers. <*controller*>: RAID Controller Number
-tg=da -c=<*controller*> [-a=<*diskarray*>]	Indicates the property of the Disk Array. Specify a RAID Controller Number with -c. Specify a Disk Array Number with -a to indicate the property of the specific Disk Array. Omit -a to indicate the properties of all Disk Arrays for the RAID Controller specified with -c. <*controller*> : RAID Controller Number <*diskarray*>: Disk Array Number
-tg=ld -c=<*controller*> [-l=<*logicaldrive*>]	Indicates the property of the Disk Array. Specify a RAID Controller Number with -c. Specify a Logical Drive Number with -a to indicate the property of the specific Logical Drive. Omit -l to indicate the properties of all Logical Drives for the RAID Controller specified with -c. <*controller*> : RAID Controller Number <*logicaldrive*>: Logical drive number
-tg=pd -c=<*controller*> [-p=<*physicaldevice*>]	Indicates the property of the Disk Array. Specify a RAID Controller Number with -c. Specify a Physical Device Number with -a to indicate the property of the specific Physical Device. Omit -p to indicate the properties of all Physical Devices for the RAID Controller specified with -c. <*controller*> : RAID Controller Number <*physicaldevice*>: Physical device number

[Description]

Displays the properties of RAID Controllers, Disk Arrays, Logical Drives and/or Physical Devices. The properties of all managed RAID Systems connected to the computer or those of specific RAID Controllers, Disk Arrays, Logical Drives and Physical Devices can be displayed.

rebuild

[Overview]

Starts or stops Rebuild.

[Format]

raidcmd **rebuild** -c=<*controller*> -p=<*physicaldevice*> -op={start|stop}

Command Parameter	Description
-c=<*controller*>	Specify the RAID Controller to be processed. <*controller*> : RAID Controller Number
-p=<*physicaldevice*>	Specify the Physical Device to be processed. <*physicaldevice*> : Physical Device Number
-op={start|stop}	Specify that Rebuild is started or stopped. start: Starts Rebuild. stop: Stops Rebuild.

[Description]

Starts Rebuild of the specified Physical Device or stops Rebuild being executed for the specified Logical Drive.

[Condition]

This command can be executed only in the Advanced Mode.
Starting Rebuild can be executed for a Physical Device with [Status] being [Failed] used by a Logical Drive with [Status] being [Degraded].

rescan

[Overview]

Update the RAID System management information of the Universal RAID Utility.

[Format]

raidcmd **rescan**

[Description]

This command collects the configuration information and state information of all of RAID systems managed by the Universal RAID Utility. The management information of RAID System in the Universal RAID Utility is the newest state by this command.

runmode

[Overview]

Changes the RAID System Management Mode of the raidcmd.

[Format]

raidcmd **runmode** [-md={a|s}]

Command Parameter	Description
[-md={a|s}]	Specify the altered RAID System Management Mode. If -md option is not specified, shows the current RAID System Management Mode. a: Advanced mode s: Standard mode

[Description]

Changes the RAID System Management Mode of the raidcmd or indicates the current RAID System Management Mode.

Valid period of mode after change

The RAID System Management Mode is valid unless it is changed by runmode command. The RAID System Management Mode remains unchanged if the computer is rebooted.

sbuzzer

[Overview]

Stops the Buzzer on a RAID Controller.

[Format]

raidcmd **sbuzzer** -c=<*controller*>

Command Parameter	Description
-c=<*controller*>	Specify the RAID Controller to be processed. <*controller*> : RAID Controller Number

[Description]

Stops the Buzzer sounding in the specified RAID Controller.

The command terminates normally if it is executed without Buzzer sounding.

slotlamp

[Overview]

Turns on or off the DISK lamp of the computer or enclosure in which Physical Devices are installed.

[Format]

raidcmd **slotlamp** -c=<*controller*> -p=<*physicaldevice*> -sw={on|off}

Command Parameter	Description
-c=<*controller*>	Specify the RAID Controller to be processed. <*controller*> : RAID Controller Number
-p=<*physicaldevice*>	Specify the Physical Device to be processed. <*physicaldevice*> : Physical Device Number
-sw={on|off}	Specify that the lamp is turned on or off. on: Turns on the lamp. off: Turns off the lamp.

[Description]

Turns on or off the DISK lamp on the computer or enclosure in which the specified Physical Device is installed.
Executing the raidcmd with -sw=on while the DISK lamp is already ON causes the command to terminate normally.
Executing the raidcmd with -sw=off while the DISK lamp is already OFF causes the command to terminate normally.

stspd

[Overview]

Changes the status of a Physical Device to online or failed forcibly.

[Format]

raidcmd **stspd** -c=<*controller*> -p=<*physicaldevice*> -st={online|offline} [-y]

Command Parameter	Description
-c=<*controller*>	Specify the RAID Controller to be processed. <*controller*> : RAID Controller Number
-p=<*physicaldevice*>	Specify the Physical Device to be processed. <*physicaldevice*> : Physical Device Number
-st={online|offline}	Specify the altered status. online: Online status offline: Failed status
[-y]	Changes the status without the message of confirming that the status may be changed.

[Description]

Changes the [Status] of the specified Physical Device to [Online] or [Failed].

[Condition]

This command can be executed only in the Advanced Mode.